

Amendments to the Figures

Attached please find one sheet of Figures, which is the corrected formal figures 3A to 3C. These formal figures are in accord with the red-lined markup sent with the last response.

Please replace drawing sheet 3 in the original filed application with the attached replacement sheet.

REMARKS/ARGUMENTS

The Examiner is thanked for the extensive interview with Mr. Earle Jennings, a patent agent associated with Mr. Gregory Smith. The revisions discussed are reflected throughout this amendment.

Objection to Figures

The Examiner objected to revised, informal sheet for sheet 3. It has been replaced by a sheet of formal Figures. The Examiner is requested to remove this objection to the Figures.

Objection to Specification

The Examiner objected to the spelling of “coplanar” in the specification. The specification has been amended appropriately. Several claims have been amended to correct this spelling error. The examiner is requested to remove this objection to the specification.

Claims rejection under 35 USC section 112

Claims 7-12, 16-19, and 21 stand rejected under 35 USC section 112, second paragraph.

Claim 7 specifically was rejected because of “as in claim 6” in the last line. Claim 7 has been amended as follows:

7. (currently amended) A—The method of Claim 6 providing electrical interconnection by a voice coil actuator arm through at least one head arm between at least one head slider coupled to said head arm and a disk drive read interface and a disk drive write interface, for said head slider, further comprising the steps step of:

said head arm providing electrical interconnection between said head slider and said disk drive read interface and said disk drive write interface ~~as in Claim 6.~~

The applicant believes that this claim is now in condition for allowance and respectfully requests the Examiner remove the rejection to this Claim as amended.

Claim 8 has been amended as follows:

8. (currently amended) The method of Claim 7, further comprising the step of:

said head arm providing electrical interconnection between a second head slider and said disk drive read interface and said disk drive write interface, further comprising the steps of:

providing a third differential signal path and a fourth differential signal path as essentially parallel, ~~coplanar~~ coplanar traces on said head arm traversing essentially parallel to said ground plane as a third differential trace pair and a fourth differential trace pair;

providing connectivity to a ~~said~~ second head slider for a second read differential wire pair and for a second write differential wire pair via said third differential trace pair and said fourth differential trace pair, respectively;

providing connection to a second disk drive read interface via said third differential trace pair; and

providing connection to a second disk drive write interface via said fourth differential trace pair.

The applicant believes that this claim is now in condition for allowance and respectfully requests the Examiner remove the rejection to this Claim as amended.

Claim 9 has been amended as follows:

9. (Currently amended) The method of Claim 8,
wherein said voice coil actuator arm is further comprised of a second head
arm; and

said method is further ~~comprised of~~ comprising the steps step of:

said second head arm providing electrical interconnection between a third
head slider and a third disk drive read interface and a third disk drive write
interface, further comprising the steps of:

creating a ground plane in said second head arm;

providing at least two differential signal paths as essentially parallel,
coplanar traces on said second head arm traversing an essentially fixed distance
parallel to said ground plane as a first differential trace pair and a second
differential trace pair;

providing connectivity to said third head slider for said read differential
wire pair and for said write differential wire pair via said first and said second
differential trace pair, respectively;

providing connection to said disk drive read interface via said first
differential trace pair; and

providing connection to said disk drive write interface via said second
differential trace pair.

The applicant believes that this claim is now in condition for allowance and respectfully
requests the Examiner remove the rejection to this Claim as amended.

Claim 10 has been amended as follows:

10. (currently amended) The method of Claim 9,
wherein said voice coil actuator arm is further comprised of a third head
arm; and

said method is further ~~comprised of~~ comprising the steps step of:

said third head arm providing electrical interconnection between a fourth head slider and a fourth disk drive read interface and a fourth disk drive write interface, further comprising the steps of:

creating a ground plane in said third head slider;

providing at least two differential signal paths as essentially parallel, coplanar traces on said third head slider traversing an essentially fixed distance parallel to said ground plane as a first differential trace pair and a second differential trace pair;

providing connectivity to said fourth head slider for said read differential wire pair and for said write differential wire pair via said first and said second differential trace pair, respectively;

providing connection to said disk drive read interface via said first differential trace pair; and

providing connection to said disk drive write interface via said second differential trace pair.

The applicant believes that this claim is now in condition for allowance and respectfully requests the Examiner remove the rejection to this Claim as amended.

Claim 11 has been not been amended, however, by the amendment of Claim 7, this Claim overcomes the rejection. The applicant believes that this claim is now in condition for allowance and respectfully requests the Examiner remove the rejection to this Claim as amended.

The Examiner pointed to “the steps of Claim 7” as indefinite in Claim 12. This Claim has been amended as follows:

12. (currently amended) A method of operating a disk drive using the method of Claim 7 for said head arm providing electrical interconnection of said read differential wire pair and said write differential wire pair between said head slider and said disk drive read interface and said disk drive write interface, comprising the step of: ~~the steps of Claim 7~~

said head arm providing electrical interconnection between said head slider and said disk drive read interface and said disk drive write interface, further comprising the steps of:

using said ground plane in said head arm;

using said at least two differential signal paths as essentially parallel, coplanar traces on said head arm traversing said essentially fixed distance parallel to said ground plane as said first differential trace pair and said second differential trace pair;

using said connection to said disk drive read interface via said first differential trace pair for said read differential wire pair with said head slider; and

using said connection to said disk drive write interface via said second differential trace pair for said write differential wire pair with said head slider.

The applicant believes that this claim is now in condition for allowance and respectfully requests the Examiner remove the rejection to this Claim as amended.

Claims 16-19 and 21 stand rejected under 35 USC section 112, second paragraph.

The Examiner pointed out that “apparatus” lacks antecedent basis in these Claims. They have been amended as follows:

16. (currently amended) The ~~apparatus~~ voice coil actuator arm of Claim 15, wherein said head arm is further comprised of:

a third and a fourth pair of ~~coplanar~~ coplanar, parallel transmission paths essentially parallel to said ground plane interconnecting both a second read differential wire pair and a second write differential wire pair to a second head slider;

said third parallel transmission path pair interconnects to a second disk drive read interface; and

said fourth parallel transmission path pair interconnects to a second disk drive write interface.

17. (currently amended) The ~~apparatus~~ voice coil actuator arm of Claim 16, further comprising:

a second head arm interconnecting a third head slider, a third disk read interface and a third disk write interface.

18. (currently amended) The ~~apparatus~~ voice coil actuator arm of Claim 17, further comprising:

a third head arm interconnecting a fourth head slider, a fourth disk read interface and a fourth disk write interface.

19. (currently amended) The ~~apparatus~~ voice coil actuator arm of Claim 15, further comprising:

an analog interface interconnecting said first parallel transmission path and said disk read interface; and

said analog interface interconnecting said second parallel transmission path and said disk write interface.

21. (currently amended) The ~~apparatus~~ head arm of Claim 14, further comprising:

a third and a fourth pair of ~~coplanar~~ coplanar, parallel transmission paths essentially parallel to said ground plane interconnecting both a second read differential wire pair and a second write differential wire pair to a second head slider;

said third parallel transmission path pair interconnects to a second disk drive read interface; and

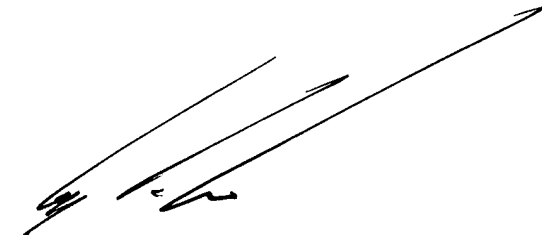
said fourth parallel transmission path pair interconnects to a second disk drive write interface.

The applicant believes that these claims are now in condition for allowance and respectfully requests the Examiner remove the rejection to the claims, as amended..

CONCLUSION

Applicant invites the Examiner to contact Earle Jennings or Gregory Smith, as listed below, for a telephonic interview if so doing would expedite the prosecution of the application.

Very respectfully submitted,



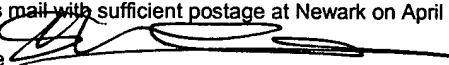
Gregory Scott Smith
GSS Law Group
3900 Newpark Mall Rd
Third Floor, Suite 317
Newark, CA 94560

Reg. No. 38,309
Phone (510) 742-7417
Fax (510) 742-7419

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as attached hereto, addressed to the Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, will be deposited with the U.S. Postal Service as first class mail with sufficient postage at Newark on April 8, 2005.

Signature


Evanjin M. Dasalla

Date: April 8, 2005